



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

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December 22, 2006

Craig Anderson  
Rogue Valley Transit District  
3200 Crater Lake Avenue  
Medford, OR 97504

Subject: FTA Alternatives Analysis Guidance for the Rogue Valley Commuter Rail Project

Dear Craig:

It has come to my attention that Rogue Valley Transit District has recently initiated, or is preparing to initiate, studies of transportation alternatives for a Commuter Rail project between Medford and Central Point. I further understand that you may seek New Starts funding for these projects, thus necessitating a request to the Federal Transit Administration (FTA) to formally approve the locally-selected alternative into preliminary engineering. FTA's approval of preliminary engineering is a very significant action, and is based in large measure on the quality of the technical work performed during the alternatives analysis (AA) study.

As you begin your AA studies, I would therefore like to remind you about the importance of this stage of the planning and project development process, and of the technical assistance available to you from FTA. Alternatives analysis provides the means by which local decisionmakers weigh the costs and benefits of a full range of investment strategies to solve locally-identified transportation problems and needs, resulting in the selection of a preferred alternative to advance into further development, and, ultimately, implementation. FTA desires to provide early, active, and ongoing technical support to local agencies conducting alternatives analysis to ensure that such studies are generating the types of information necessary to reach informed decisions. We have found that such assistance helps local project sponsors resolve technical and procedural issues early in the AA study process, rather than at the end when it may be too late to resolve them efficiently. Early assistance from FTA during AA further helps project sponsors prepare the information needed to support their request to advance a preferred alternative into preliminary engineering and avoid the lengthy delays associated with incomplete and/or premature requests.

FTA's website, and in particular the page on major investment planning and project development ([http://www.fta.dot.gov/planning/planning\\_environment\\_5221.html](http://www.fta.dot.gov/planning/planning_environment_5221.html)), provides a wealth of information which may be of great value to you and your staff throughout the alternatives analysis study. FTA plans on issuing additional guidance and training on AA in the near future. In the meantime, and as a first step in the AA study process, FTA recommends the preparation by local agency staff of preliminary information on the following key elements of the study:

- Transportation problems and needs in the study area;



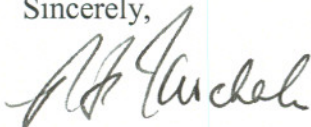
- Conceptual alternatives to be evaluated in the study;
- Preliminary measures for the evaluation of alternatives.

The development of this information, which might be called an AA "start-up package," is not intended to require additional work by study sponsors, but rather to draw upon previous systems planning and other planning efforts and the routine preparatory work necessary to initiate any alternatives analysis study. Further guidance on this start-up package is attached to this letter, along with an example of such a document created for a recent study in the Washington, DC area.

I encourage you to prepare this initial information at the outset of your study and to submit it to FTA for review. This information will lay the groundwork for the rest of the study, and FTA's review can provide you with valuable insight and assistance which will facilitate the conduct of subsequent AA activities, including the development of a sufficient purpose and need or problem statement for the study; the detailing and refinement of transportation alternatives (leading to FTA's required approval of a baseline alternative against which to evaluate the performance of a proposed New Starts project); the establishment of sound travel demand forecasting procedures which result in reliable and defensible estimates of the transportation benefits of studied alternatives; and other dimensions (financial planning, capital and O&M costing, transportation and environmental impact analyses) of the analytical effort. Once again, it is important to keep in mind that failure to perform these important analytical activities in accordance with FTA guidance (and good planning practice) can result in the risk of significant delays in the processing of the subsequent preliminary engineering request for the project, as FTA and local staff address issues that could and should have been resolved much earlier in the study.

FTA believes that communication is the key to our ability to assist study sponsors, and we ask that you keep FTA informed of and engaged in the progress of your study. If you have any questions related to the contents of this letter and the attachments, or any other aspect of alternatives analysis, please do not hesitate to contact me. In the meantime, I have asked my staff, as well as planners located in FTA headquarters in Washington DC, to follow up with your staff to ensure that this important dialogue has begun. On behalf of the Federal Transit Administration, I look forward to working with you on your alternatives analysis studies.

Sincerely,



R. F. Krochalis  
Regional Administrator

Enclosures

Cc: Michael Cavallaro, Executive Director-RVCOG



## **Problem Statement, Evaluation Measures, and Initial Alternatives**

The Potomac River-North Crossing Study is considering a range of alternatives that would provide an additional connection between the transportation networks of Maryland and Virginia. This “start-up” package of information provides an initial look at three of the principal underpinnings of the study: 1) the problems that it will address; 2) the measures that it will use to judge the merits of alternative ways of addressing those problems; and 3) the starting-point set of those alternatives. The most important purpose of this document is to provide to all participants an early opportunity to help set the scope of the study. Comments on the problem statement, evaluation measures, and initial (conceptual) alternatives will help to identify needed changes and to ensure that the study will develop efficiently the information needed for crucial decisions on accessibility in the area. The document provides some context for the study, describes the transportation problems that motivate the study, identifies the environmental concerns that will be considered, outlines several other considerations that will contribute to the evaluation, and provides a draft list of specific evaluation measures. The document concludes with a brief description of each alternative identified thus far for consideration in the study.

### **1. Context**

The 2001 Transportation Appropriations Act directs the Federal Highway Administration to study ways of reducing congestion in areas of Maryland and Virginia. The purpose of this study is to provide information that can be used by state and local officials to consider the benefits, costs, impacts, and financing of several approaches to congestion relief, including several alternatives that would provide a new crossing of the Potomac River. Decisions on further development and implementation of any alternative would occur after completion of the study and would be made by state and local officials.

The study is proceeding with planning level of detail in the analysis of a broad range of alternatives. Additional steps in the further development of any specific alternative would be its inclusion in the Constrained Long Range Plan for the metropolitan Washington area and its consideration in terms required by the National Environmental Policy Act (including the preparation of an Environmental Impact Statement).

### **2. Transportation Problem**

The I-270 Corridor in Maryland and the Dulles Corridor in Virginia are major centers of rapid economic growth in the metropolitan Washington area. Today, these two corridors encompass substantial portions of the population and employment in the region. The two corridors have attracted a large share of the growth in the metropolitan area over the last 10 years and are projected to continue this rapid growth rate through 2025.



Travel from these corridors to other parts of the metropolitan Washington area is partially limited by a substantial discontinuity in the regional transportation system. No highway or transit connections exist across the Potomac River for a stretch of 35 miles from the American Legion Bridge to the Point of Rocks Bridge. As a result, travel from the I-270 Corridor to Virginia and from the Dulles Corridor to Maryland is largely dependent upon the American Legion Bridge and segments of the Capital Beltway. These highway facilities carry over 200,000 vehicles per day traveling between points throughout Maryland and Virginia, as well as longer-distance trips to and from other states. The facilities experience substantial daily traffic congestion, provide unreliable travel times, and have no alternative routing around major traffic incidents. These conditions are projected to deteriorate as traffic on these facilities grows through 2025.

The immediate consequences of these conditions are increasing travel times, limitations on access, and additional travel costs for residents and businesses. In the long run, consequences may also include negative effects on the regional economy, quality of life, and the competitiveness of the metropolitan area in attracting and keeping high-quality employment.

Consequently, it is appropriate at this time to consider a range of strategies for meeting the growing transportation demand for travel across the Potomac River.

### **3. Environmental Considerations**

Like any large construction project, major improvements to the transportation system have the potential to cause adverse impacts on the human and natural environment. Direct consequences may include: the taking of land, residences, and businesses to assemble rights-of-way for new facilities; disruption, noise, exhaust emissions, visual intrusion, and other impacts on communities, parklands, and other land uses located near the new facilities; and impacts on the natural environment, wetlands, floodplains, endangered species, and other natural resources. The study area encompasses a variety of land uses ranging from rural and agricultural land to a broad range of residential and commercial development. The area includes a nationally significant system of federal, state, and local parks located along the Potomac River and its tributaries, linked physically and culturally by the C&O Canal National Historical Park. Consequently, the study will identify transportation improvements that avoid impacts on these resources to the extent possible, characterize any impacts that appear to be unavoidable, and describe the actions that could be taken to mitigate any adverse impacts as part of the implementation of each alternative.

Indirect consequences may include the development of nearby areas, the traffic associated with new development, and the environmental impact of that development. These indirect consequences may not be consistent with policies of state and local governments intended to shape development patterns. In Maryland, statewide policy is to target state funding to existing developed areas as a way of encouraging dense development and redevelopment. Within Montgomery County, the comprehensive plan calls for planned development and maintains an agricultural preserve in rural areas of the county. In Virginia, Loudoun County is currently moving towards controls on growth in western portions of the county and the Fairfax County comprehensive plan calls for lower densities in that county's western locations. From a regional



perspective, the alternatives may influence the relative pace of growth in individual jurisdictions. Consequently, the study will explicitly consider the indirect consequences of the alternatives, their consistency with state and local land-use policies, and their potential implications for the region.

A final environmental concern is regional air-quality and the ability of the metropolitan area to attain national air-quality standards. Air quality affects both the health of residents of the metropolitan area and the availability of federal funding assistance for transportation investments throughout the region. Consequently, the study will examine the likely impacts of the alternatives on exhaust emissions and regional air quality.

#### **4. Other Considerations**

Several other considerations will play a role in the evaluation of the alternatives. First, because any transportation improvement should be a cost-effective investment, the study will evaluate each alternative in terms of benefits produced compared to costs incurred. Second, because any toll revenues or transit-farebox receipts generated by an alternative may not be sufficient to cover its costs, the study will identify the potential need for and sources of additional funding for the capital, operating, and maintenance costs of each alternative. Third, because benefits, costs, and impacts may be distributed unevenly across the population, the study will examine each alternative in terms of who benefits, who pays, and who is subject to any adverse impacts.

#### **5. Evaluation Measures**

Given the transportation problem, the environmental concerns, and the other considerations outlined in the problem statement, the North Crossing Study will necessarily produce a broad range of information for consideration by state and local decisionmakers and the public. The information will be organized into six perspectives on the performance of each alternative. This section identifies the specific measures that will be developed to quantify performance, to the extent possible, from each of those perspectives.

1. The effectiveness of the alternative in improving accessibility and travel conditions.
  - Total benefits to users of the transportation system
  - Levels of service on principal highway facilities
  - Travel times to selected activity centers: peak and off-peak, highway and transit
  - Accessibility of residents to employment: jobs within specified travel times, highway and transit
  - Accessibility of employers to workers: households within specified travel times, highway and transit
  - Volumes on selected facilities (American Legion Bridge, Point of Rocks Bridge, new crossing, etc.)
  - System redundancy – number of trips “re-routable” between existing and new crossings
2. The impact of the alternative on the regional economy and on the ability of the region to compete nationally for high-quality employment.
  - Total benefits to the regional economy (jobs added, tax base, national competitive standing), as projected by the Expert Panel

- Differences in economic impacts (jobs added, tax base, national competitive standing) across individual jurisdictions within the region, as projected by the Expert Panel
3. The extent to which implementation of the alternative could be accomplished with minimum harm to the human and natural environment, and in a way consistent with local and state land-use policies.

The human environment

- Direct residential/business/farm property impacts – number of takings and acreage required
- Proximity impacts on residences/businesses/farms within 1,500(?) feet of the centerline
- Community impacts – facilities, disruption, barriers to circulation
- Parks and recreation areas – number, acreage required, proximity effects
- National Register sites (listed and eligible) and archeological sites – number, acreage required, proximity effects”

The natural environment

- Streams, wetlands, floodplains – number, nature, likely impacts, implications for approvals
- Chesapeake Bay Critical Areas
- Aquifer(s)
- Known rare, threatened or endangered species habitat
- Forests
- Air Quality (MWCOC analysis of conformity implications)

Consistency with local and state land-use policies

- Comprehensive plans
  - Priority Funding Areas in Maryland – direct impacts and consistency with policy
  - Agricultural Reserve – direct impacts and consistency with policy
4. The cost-effectiveness of the alternative in terms of benefits generated per dollar of investment in capital costs, operations, and maintenance of the new facilities.
- User benefits per dollar cost (capital, operating, maintenance)
5. The financial feasibility of the alternative in terms of the availability of toll revenues, fare revenues, existing funding sources, and new funding sources of sufficient magnitude to pay for capital, operating, and maintenance costs.
- Self-financing ability through tolls and benefit-assessment districts
  - Risks and sensitivity to risks in the revenue projections
  - Magnitude of funding needed to cover shortfall in revenue generation
6. The distribution of costs, benefits, and other impacts of each alternative on various population groups with attention to differences in these distributions.
- Characteristics of affected communities
  - Travel benefits by location
  - Characteristics of households directly impacted
  - Distribution of funding costs between users and non-users



As the study progresses, this initial listing of measures may evolve as more information is developed about the performance and impacts of the alternatives, and as additional comments are provided by the public and local officials through the study's outreach efforts.

## **6. Transportation Alternatives**

This section provides an initial list of the transportation alternatives that will be considered in the study. This list may change as additional input is provided by the public and local officials, as alternatives are added or dropped in response to initial findings on the performance of the alternatives and the conditions in the corridor, and as the definitions of the alternatives are refined throughout the course of the study.

### **Alternative #1: No Build: The Constrained Long Range Plan**

The No-Build alternative would provide no new Potomac Crossing but would include all projects in the most recently approved and adopted Constrained Long Range Transportation Plan for the National Capital Region. Major projects in the Plan for the North Crossing Study area include:

#### Maryland - Highway

- I-70, construct/widen to 6 lanes, Mt. Phillip Rd. to MD 144FA, 5.3 miles, 2010
- I-270 Spurs, interchange improvements, 2000, 2010
- I-270 interchange at Watkins Mill Rd., 2025
- I-270, interchange at MD 117 with Park and Ride lot, 2003
- MD 28, widen to 6 lanes from Riffleford Rd. to Great Seneca Highway, 3.36 miles, 2004

#### Virginia - Highway

- I-495, widen to 10 lanes, Dulles Toll Road to American Legion Bridge, 2008
- VA 7, Leesburg Pike, widen to 6, 8 lanes from I-495 to Rolling Holly Drive, 2001, 2010
- VA 7, Leesburg Pike, widen to 6 lanes from Lakeland Drive to VA 228, 2001
- VA 7, Leesburg Pike, upgrade and widen to 6 lanes, including interchanges from VA 7/US 15 east to Algonkian Parkway, 2003, 2005
- Dulles Access Road, widen to 6 lanes from airport to VA 123, 2010
- Dulles Greenway, widen to 6 lanes from VA 772 to VA 28, 2010
- Fairfax County Parkway, construct, 4, 5, 6 lanes from VA 123 to VA 7, 2000, 2001, 2010, including interchange at Monument Dr./Fair Lakes Parkway, 2005

#### Maryland – Transit

- MARC rail extension from Point of Rocks to Frederick, 2002

#### Virginia – Transit and HOV

- Dulles Fixed Guideway Transit, Bus Rapid Transit (BRT), 2003
- Dulles Fixed Guideway Transit, Rail, 2010
- Fairfax County Parkway/Franconia Springfield Parkway HOV, 2010
- I-495 HOV, from I-95/I-395 interchange to American Legion Bridge, 2006, 2007, 2008

The No-Build alternative also includes routine maintenance and safety improvements along the various facilities. **Unless otherwise noted, the components of the No-Build alternative are also included in all of the “Build” alternatives.**

**Alternative #2: Point of Rocks Crossing**

This alternative would widen existing US 15 and replace the existing bridge at Point of Rocks – expanding the highway and bridge from their current 2-lane configuration to a maximum of 6 lanes. The alignment would remain generally the same as the current alignment with some localized adjustments to meet current design standards.

**Alternative #3: Beltway Widening**

This alternative would provide additional highway capacity by adding lanes to the Capital Beltway. In Maryland, this alternative would widen the existing 8-lane roadway (4-lanes in each direction) to 10 lanes. The additional 2-lanes would be designated HOV lanes. In Virginia, this alternative would widen the existing 8-lane roadway (4-lanes in each direction) to add a concurrent-HOV facility (10 lanes), a barrier-separated HOV facility (12 lanes), or an express/local facility (10 lanes with HOV). This alternative would also widen the American Legion Bridge from its existing 10-lane configuration (8 general purpose lanes and 2 auxiliary lanes) to 12-lanes. These additional lanes would be designated HOV lanes rather than general-purpose lanes.

**Alternative #4: Express Bus on Existing and Proposed HOV Lanes**

This alternative would provides new express bus service to connect key Maryland and Virginia residential and employment activity centers within the North Crossing Study area. This new bus service would take advantage of the existing and proposed high occupancy vehicle (HOV) lanes on I-270, the Capital Beltway (I-495) and the Dulles Toll Road.

HOV lanes currently exist on I-270 and the Dulles Toll Road. On I-270, the southbound HOV lanes begin near I-370, continue along both spurs, and tie into the Capital Beltway. The I-270 northbound HOV lanes begin at the Capital Beltway, continue along both spurs, and terminate near MD 121. Ongoing studies are considering the extension of the southbound HOV lanes to be consistent with the MD 121 northbound terminus. On the Dulles Toll Road, the westbound HOV lanes begin immediately beyond the first toll plaza and terminate in the vicinity of VA 28. The eastbound HOV lanes begin in the vicinity of VA 28 and terminate between the last eastbound toll plaza and the Capital Beltway.

HOV lanes on the Capital Beltway are already under study by both Maryland and Virginia. Each state is investigating varying typical sections, but all include a minimum of one HOV lane in each direction. This includes HOV lanes on the American Legion Bridge.



**Alternative #5: New Fixed Guideway Transit – “The Purple Line”**

This alternative would construct a new Metrorail line to extend Metrorail service to key residential and employment centers generally along I-270 and the Capital Beltway. The new rail line would tie into the Red Line at Grosvenor. It would head in a westerly direction to the I-270 West Spur where it would turn south and follow I-270 to the Capital Beltway. The line would then follow the Capital Beltway across the Potomac River (adjacent to the American Legion Bridge) into Virginia. Continuing along the Capital Beltway, the line would tie into the proposed Dulles Metrorail line near Tysons Corner.

**Alternative #6: New Roadway between the Fairfax County Parkway and a mid-point connection to I-270 (between Rockville and Gaithersburg)**

This alternative would add a new Potomac crossing and roadway connecting the Fairfax County Parkway in Virginia and I-270 in Maryland in the vicinity of I-370. The roadway and crossing would have a maximum of six lanes using “parkway” and “Thinking Beyond the Pavement” cross section elements such as landscaping, bike paths, and so forth. The roadway and crossing may include HOV lanes. Regardless of lane use, the entire facility would charge tolls to permit private financing.

**Alternative #7: New Roadway between the Fairfax County Parkway and a northerly connection to I-270**

This alternative would add a new Potomac crossing and roadway connecting the Fairfax County Parkway in Virginia and I-270 in Maryland in the vicinity of MD 27/Father Hurley Boulevard. The roadway and crossing would have a maximum of six lanes using “parkway” and “Thinking Beyond the Pavement” cross section elements such as landscaping, bike paths, and so forth. The roadway and crossing may include HOV lanes. Regardless of lane designations, the entire facility would charge tolls to permit private financing.

**Alternative #8: New Roadway between VA 28 and a mid-point connection to I-270 (between Rockville and Gaithersburg)**

This alternative would add a new Potomac crossing and roadway connecting VA 28 and I-270 in the vicinity of I-370. The roadway and crossing would have a maximum of six lanes using “parkway” and “Thinking Beyond the Pavement” cross section elements such as landscaping, bike paths, and so forth. The roadway and crossing may include HOV lanes. Regardless of lane designations, the entire facility would charge tolls to permit private financing.

**Alternative #9: New Roadway between VA 28 and a northerly connection to I-270**

This alternative would add a new Potomac crossing and roadway connecting VA 28 and I-270 in the vicinity of MD 27/Father Hurley Boulevard. The roadway and crossing would have a maximum of six lanes using “parkway” and “Thinking Beyond the Pavement” cross section elements such as landscaping, bike paths, and so forth. The roadway and crossing may include HOV lanes. Regardless of lane designations, the entire facility would charge tolls to permit private financing.